#### **GET INVOLVED! HELP MAKE SUGAR LAND A GREAT PLACE TO WALK AND BIKE!**

#### Sugar Land Pedestrian and Bicycle Master Plan

A Vision for the Future of Walking and Biking in Sugar Land!



# PUBLIC MEETING JUNE 25 SUGAR LAND CITY HALL CANE ROOM

#### Meeting Presentation



Jim Carrillo FAICP, ASLA
Director of Planning
Halff Associates Inc.

#### OUR AGENDA TONIGHT

- 1. What are we trying to accomplish?
- 2. Our toolbox to help make Sugar Land a great place to walk and ride
- 3. Your part:
  - Where do you want to go?
  - What would you like to see happen near where you live?
  - How can we implement these ideas?



#### ADOPTED CITY POLICY - MOBILITY PLAN



#### Transportation choices that promote a healthy, active lifestyle

#### Strategy

#1 – Expand bicycle and pedestrian infrastructure to serve all trips (recreational and nonrecreational) and increase safety

#### Strategy

#2 – Use policy, regulatory, and planning tools to ensure that construction of public and private developments are consistent with the City's bicycle and pedestrian infrastructure plans

#### Strategy

#3 – Foster a culture of support for bicyclists and pedestrians









# WHY IS THIS IMPORTANT? THE BENEFITS OF BICYCLING









# AN INCREDIBLY EFFICIENT WAY TO GET AROUND

- "A bicycle's performance, in both biological and mechanical terms, is extraordinarily efficient. In terms of the amount of energy a person must expend to travel a given distance, investigators have calculated it to be the most efficient self-powered means of transportation. From a mechanical viewpoint, up to 99% of the energy delivered by the rider into the pedals is transmitted to the wheels. although the use of gearing mechanisms may reduce this by 10–15%."
- "On firm, flat ground, a 70 kg person requires about 30 watts to walk at 5 km/h.
   That same person on a bicycle, on the same ground, with the same power output, can average 15 km/h, so energy expenditure in terms of kcal./(kg-km) is roughly one-third as much."

Source: wikipedia.com



# AND WHO RIDES?

















#### AND WHERE DO WE WANT TO GO?



# Our toolbox...

#### BIKE LANES...



MAIN STREET

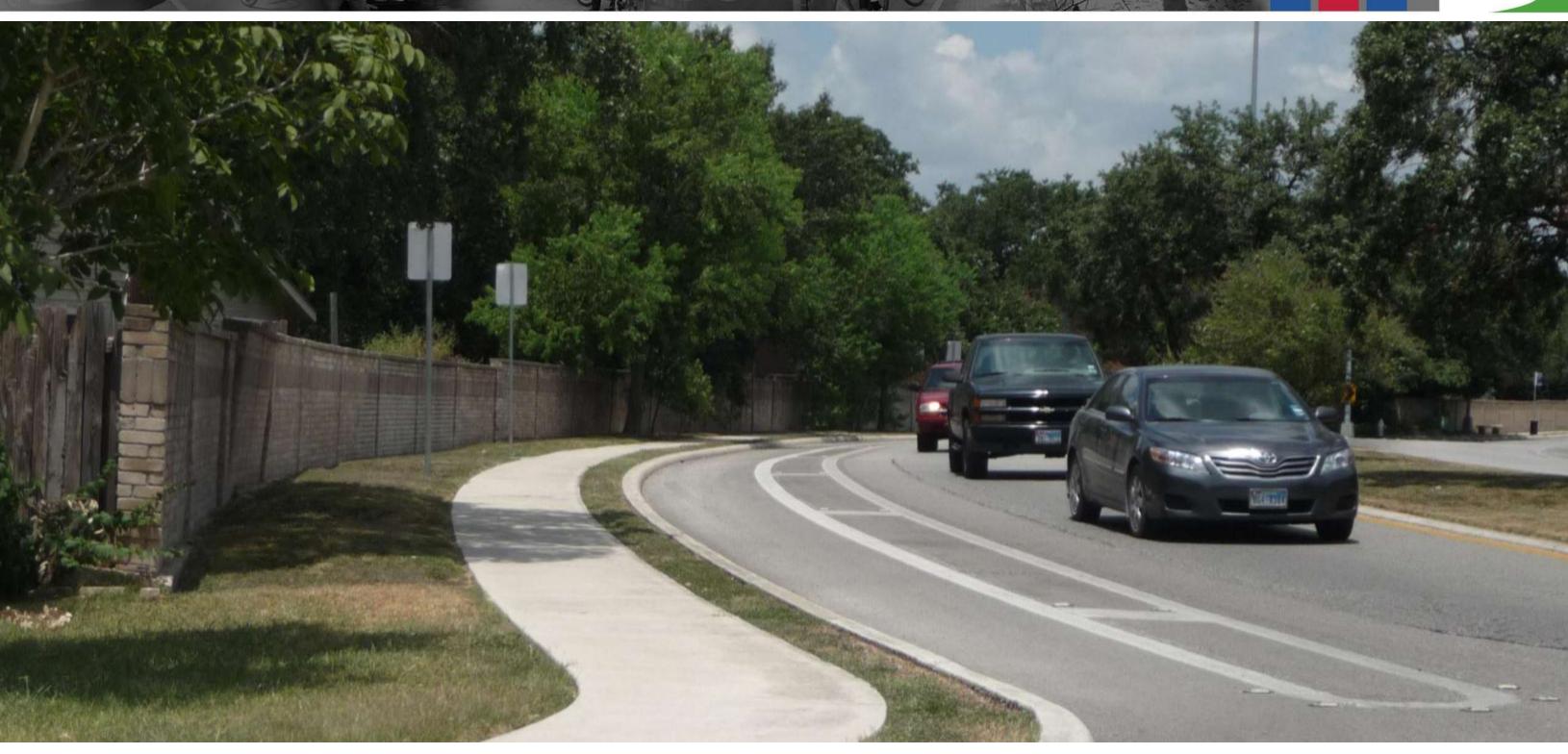
Where: Streets with lower traffic volumes and speeds

**Advantages:** Very inexpensive, easy to implement in many areas with no other option

**Disadvantages:** Some riders may not be comfortable near cars

Cost: Very low

# COMFORT or BUFFERED BIKE LANES...



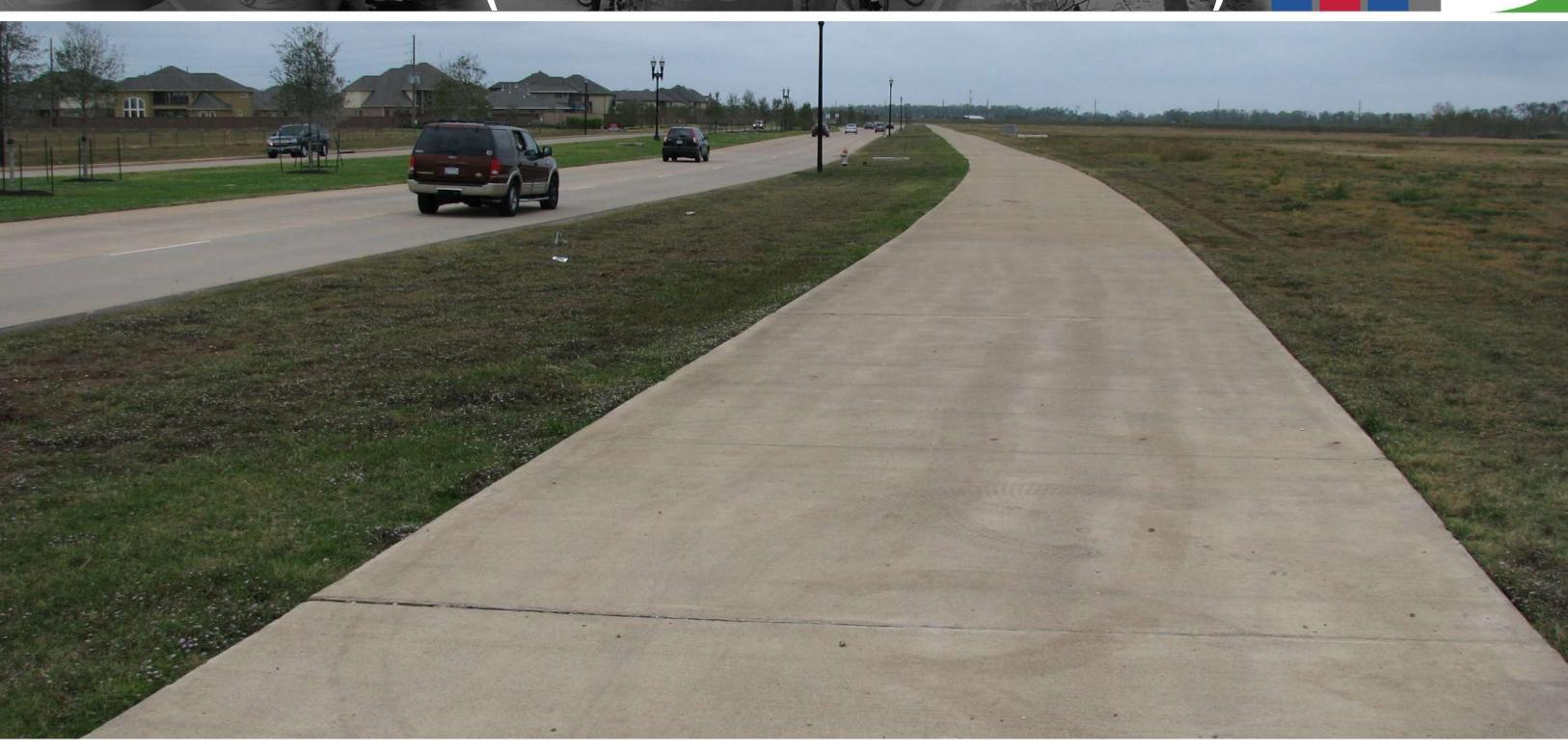
Where: Streets with sufficient pavement width

**Advantages:** Very inexpensive, easy to implement, adds extra buffering from traffic, more appealing to many average riders

**Disadvantages:**Requires wider pavement width

Cost: Very low

# SHARED-USE PATH IN SUGAR LAND (ADJACENT TO ROADWAY)



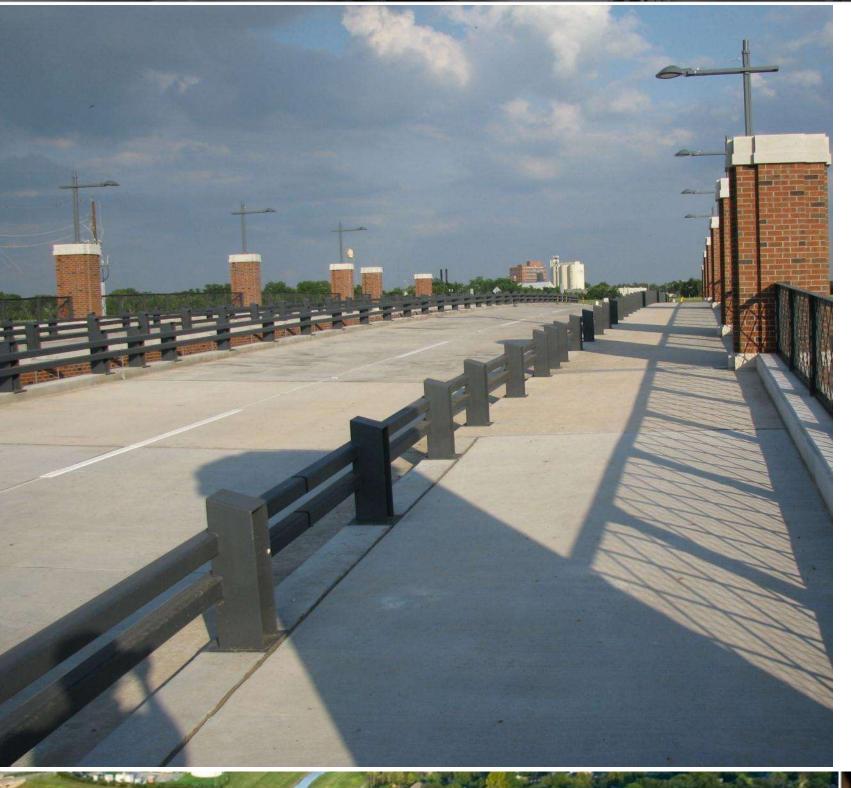
adequate parkway width

Where: Streets with Advantages: More appealing to novice or young riders, can connect areas w/o greenbelt corridors

**Disadvantages:** High cost, less appealing to experienced riders, less predictability at intersections

Cost: High

## OTHER SHARED USE PATHS IN SUGAR LAND





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Transportation and Long-Range Planning





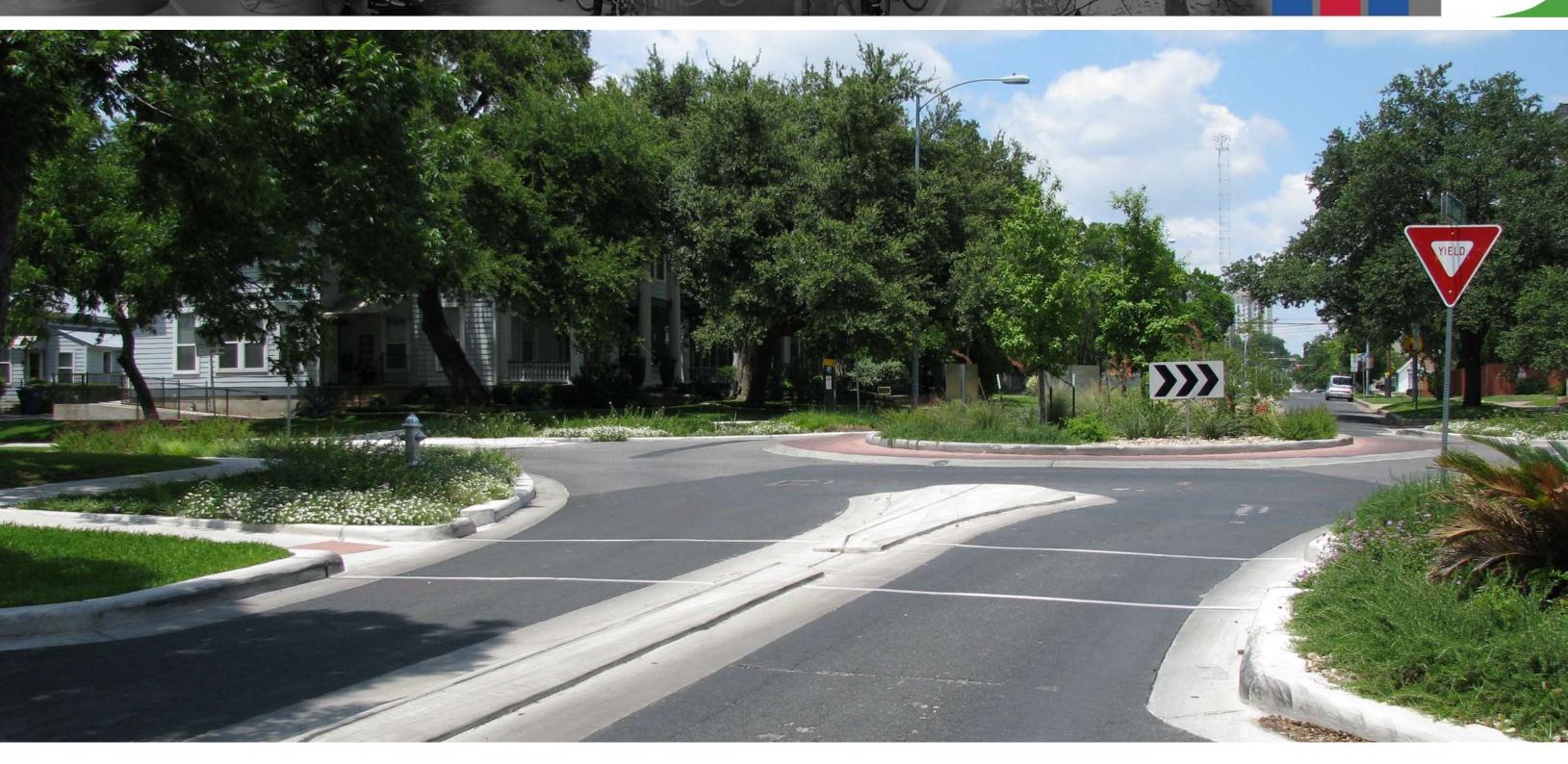


Where: Drainage, utility or greenbelt corridors

**Advantages:** attractive for riders of many skill levels, can enhance connectivity citywide

Disadvantages: high cost, Cost: High requires suitable corridor concern at street crossings

#### TRAFFIC CALMING: MINI TRAFFIC CIRCLE



Where: Neighborhoods with speeding concerns

**Advantages:** Can reduce speeding in neighborhood settings

**Disadvantages:** Driver unfamiliarity

**Cost:** Moderate to High

#### SHARED LANE MARKINGS



Where: Streets with appropriate Advantages: Very inexpensive, Disadvantages: Some Cost: Very low volumes/speeds, and w/o pavement width for bicycles lanes areas with no other option

easy to implement in many

riders may not be comfortable near cars







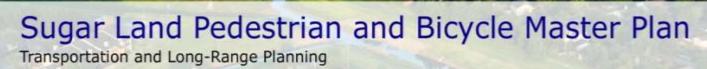




#### **Cost Difference**



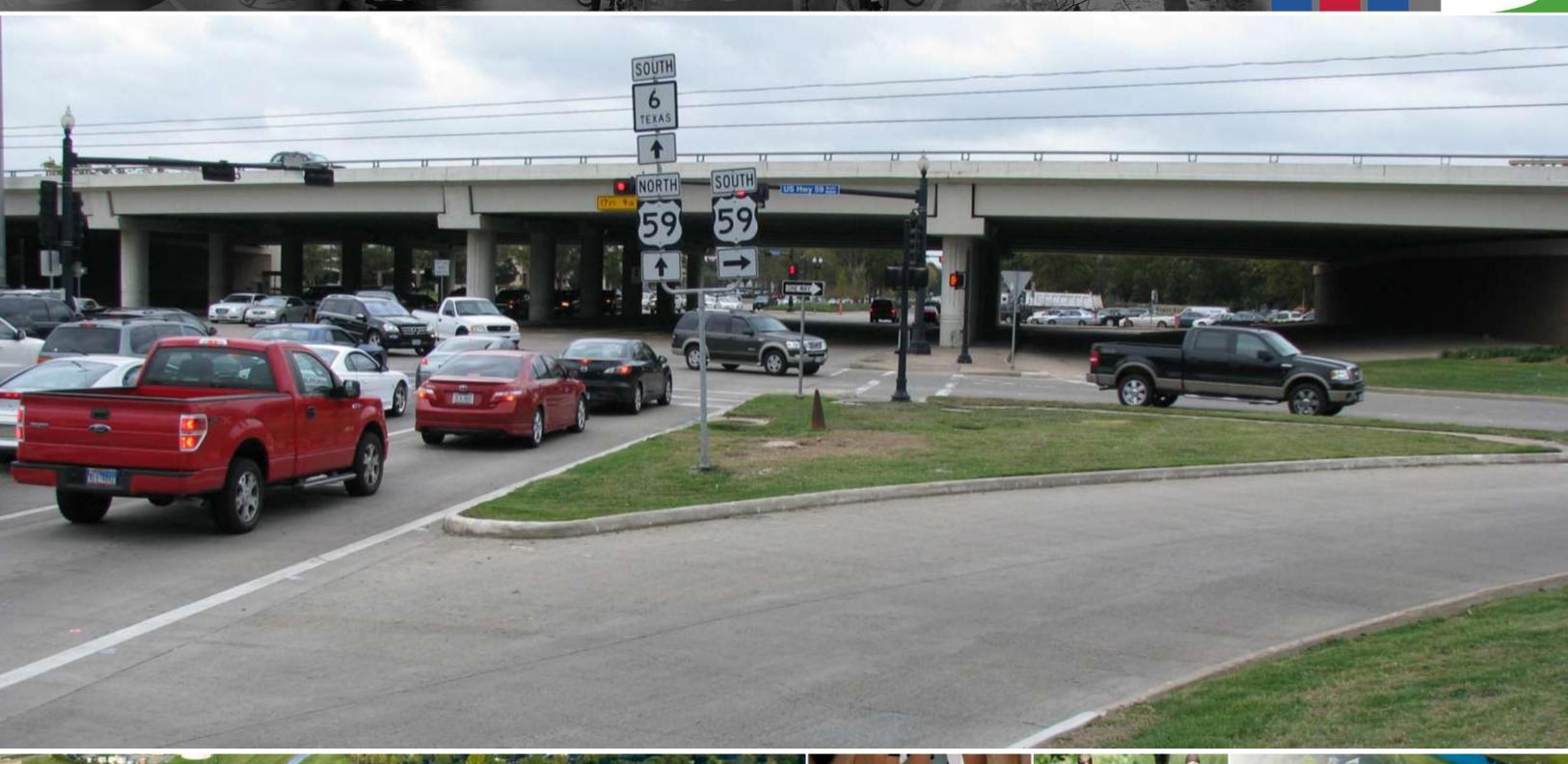








#### MAJOR BARRIERS – US 59



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# POTENTIAL BARRIER SOLUTIONS



Where: Locations with adequate space for pedestrian facilities

Advantages: More direct route Disadvantages: Potential for Cost: Moderate than bridge, can be implemented in more locations adjusting crosswalk timing

timing delays, may require



## POTENTIAL BARRIER SOLUTIONS

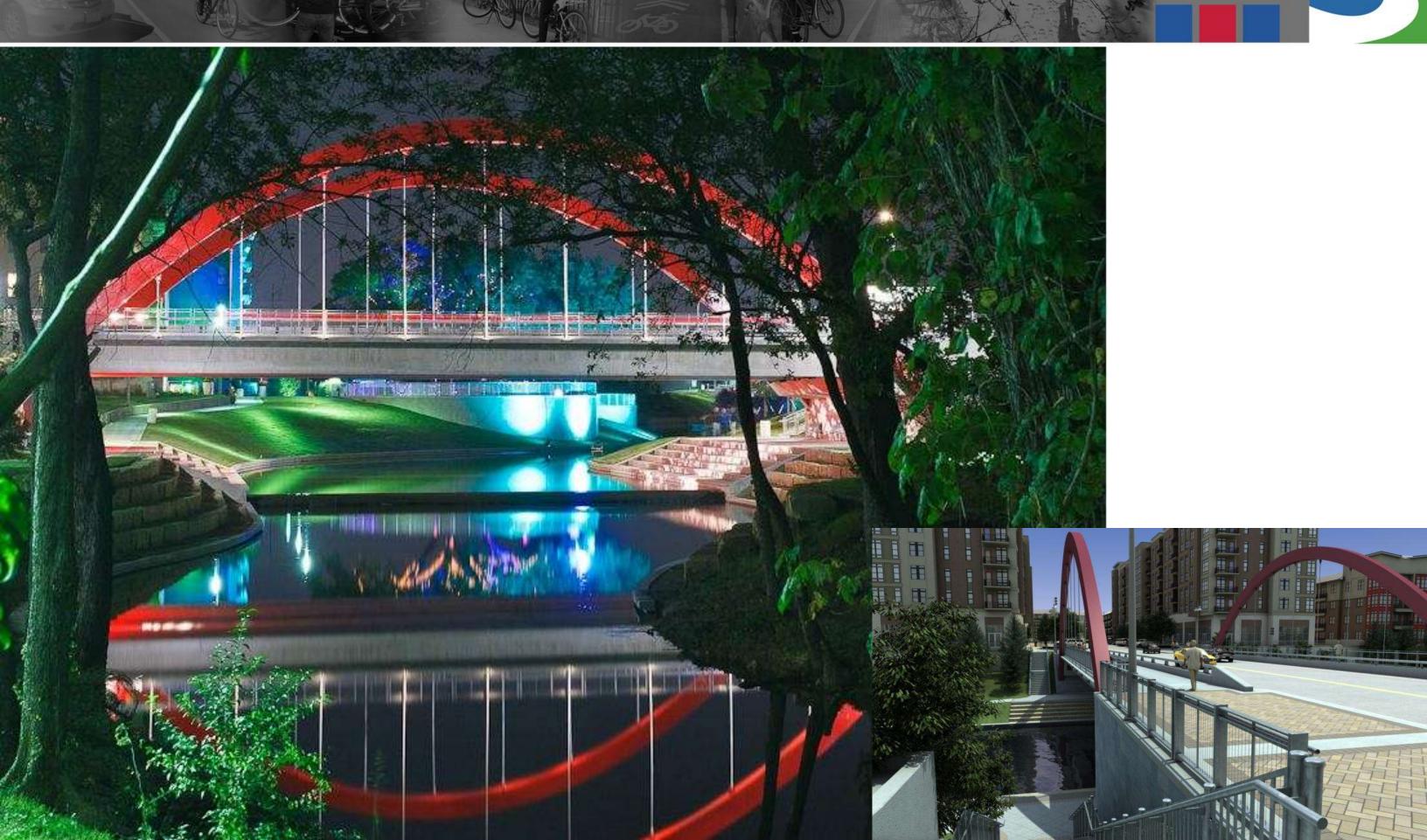


Where: At selected locations with high potential ped/bike demand

**Advantages:** Greater separation from vehicular traffic, can be iconic feature

**Disadvantages:** Very high **Cost:** Very high cost, greater right of way needed

# POTENTIAL BARRIER SOLUTIONS

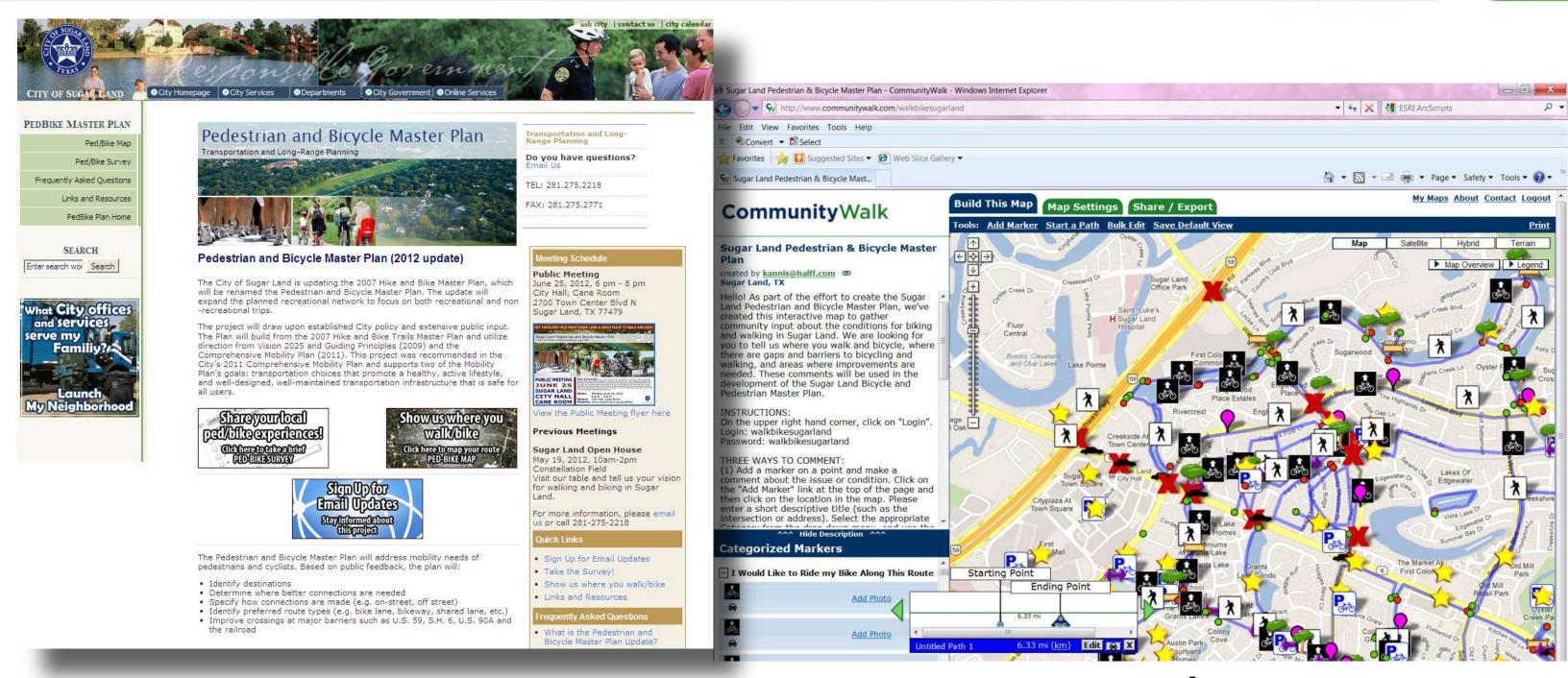


#### QUESTIONS FOR YOU TONIGHT

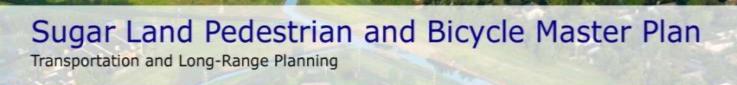
- 1. Where do you want to go?
- 2. What would you like to see happen near where you live? In the Town Center area?
- 3. How can we implement these ideas?



#### WE NEED YOUR IDEAS!



#### Website: www.sugarlandtx.gov/pedbike











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